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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/755,752

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Terry L. Williams

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02/07/2005

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EXAMINER

NGUYEN, TU X

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/755,752

Applicant(s)

WILLIAMS, TERRY L.

Examiner

Tu X Nguyen

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 13-16 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 5, 7, 11-12, 17, 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 60/175,350.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 10, 13-14 and 22, are rejected under 35 U.S.C. 102(e) as being anticipated by Kotzin et al. (US Patent 5,974,325).

Regarding claims 1 and 13, Kotzin et al. disclose a wireless cellular communication system comprising a base station (604, fig.10) and at least one repeater (605, fig.10) communicating over a wireless backhaul link for communicating with a plurality of mobile subscribers (602,603, fig.10), a method for improved backhaul efficiency, comprising the steps of:

dynamically assigning for said backhaul link at least one packet channel for transmission of selected packets containing traffic data on a backhaul signal for a subscriber, said at least one packet channel comprising at least an RF frequency and a channel definition (see col.1 lines 42-66 and col.9 line 45 through col.10 line 19, "GSM system" supports "packet channel"); and

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transmitting said selected packets on said at least one packet channel between said at least one repeater and said base station (see col.9 line 45 through col.10 line 19).

Regarding claims 2 and 14, Kotzin et al. disclose the step of performing said assigning step in response to a request for communicating over said backhaul signal for one of said plurality of mobile subscribers (see col.9 line 45 through col.10 line 19).

Regarding claims 10 and 22, Kotzin et al. disclose packets are transmitted over said backhaul link using a higher order modulation (col.1 lines 64-65).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-9, 15-16 and 18-21, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin et al. in view of Ganz et al. (US Patent 6,584,080).

Regarding claims 3-4 and 15-16, Kotzin et al. fail to disclose a priority field.

Ganz et al. disclose a priority field (see col.1 lines 1-22, "field" is inherently included). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Kotzin et al. with the above teaching of Ganz et al. in order to provide transfer speech data as priority then non-speech data.

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Regarding claims 6 and 18, Kotzin et al. fail to disclose a number of selected packets which can be sent over.

Ganz et al. discloses a number of selected packets which can be sent over (see col.5 lines 12-13). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Kotzin et al. with the above teaching of Ganz et al. in order efficiently service a high volume of users.

Regarding claims 7 and 19, the modified Kotzin et al. disclose channel definition further includes an identified time for transmission of said selected packets (see Kotzin et al., fig.5).

Regarding claims 8 and 20, the modified Kotzin et al. disclose backhaul signal comprises at least one data type selected from the group consisting of user traffic and control data (see Ganz et al., col.11 lines 5-20).

Regarding claims 9 and 21, the modified Kotzin et al. user traffic is comprised of voice traffic (see Ganz et al., col.11 lines 5-20).

***Allowable Subject Matter***

6. Claims 5, 11-12, 17 and 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claims 5 and 17, the prior arts fail to teach "the step of dynamically reassigning at least a portion of said assigned packet channel for transmission of a second backhaul signal", as cited in the claims.

Regarding claims 11 and 23, the prior arts fail to teach "the step of converting between a packet based backhaul signal and a non-packet based ground link signal", as cited in the claims.

Regarding claims 12 and 24, the prior arts fail to teach "at least one repeater comprises a plurality of repeaters, wherein one of said at least one packet channel is used to transmit packets between multiple repeaters selected from said plurality of repeaters and said cellular base station", as cited in the claim.

### Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 703-305-3427. The examiner can normally be reached on Monday through Friday from 8:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN  
February 2, 2005

  
NICK CORSARO  
PRIMARY EXAMINER